

# Impact of tweets on Indian movies performance: An integrative approach using sentiment analysis and emotion detection

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### Research Article

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## **Abstract**

Due to social media's rapid growth, moviegoers primarily rely on internet reviews before buying. Studios must determine how reviews affect sales. This study examines how online reviews affect movie box office earnings using sentiment analysis and emotion recognition. Text reviews affect attendance and revenue as much as rating does. This data can help filmmakers and advertising target demographics. Films met audience expectations, with increased trust and happiness and lower wrath, surprise, disgust, and sadness. However, some films scored better for specific emotions, suggesting they elicited different audience responses. Most film tweets were happier and more trusting after release than before. However, tweets about some films showed more wrath and dread, suggesting marketing or audience reception concerns.

# 1. Introduction

The rapid growth of various social media platforms has enabled consumers to share product experiences and specifics online. According to research, prior to making a purchase decision, consumers peruse online reviews. Due to brief life cycles, the film industry is extremely competitive. The film's genre, director, actors, and plot summary, as well as the marketing techniques used to advertise the film, can all influence box-office earnings. Most prospective moviegoers read movie evaluations, and electronic word of mouth (eWOM) influences box office success (Lee & Choeh, 2018). Nevertheless, movie evaluations contain a wealth of information regarding the perspectives of moviegoers. Numerous studies used sentiment analysis to determine the overall polarity of a text to determine what consumers were thinking (Hu & Chen, 2016; Hu et al., 2018; Liu, B., 2012).

### 1.1 Motivation and Research Objectives

The business problem is defined as: With immense dependence on social media, especially Twitter, more and more people are sharing their views and opinions, which in turn influence their decision-making. The goal is to find out how people feel about movies on Twitter and how that affects how much money they make at the box office. This will be done using NRCLex's sentiment analysis and emotion detection tools to find patterns and give the movie makers important information.

The motivations for this research are as follows: Text-based sentiment analysis is a hard business problem that has many uses and effects for both academics and business professionals. Because of the internet's quick expansion and the proliferation of social media, moviegoers can easily locate and share information about films, as well as other people's opinions and reviews, which could then affect other readers' decisions to see the film or forgo seeing it in theaters. We decided to investigate social media's ability to predict actual outcomes because it can also be interpreted as collective wisdom. Also, when making marketing and advertising campaigns, it can be helpful to gather information about how people talk about certain products. This paper discusses a similar study. We look at the task of using text from Twitter, which is one of the fastest-growing social networks on the Internet, to predict how much money movies will make at the box office. Twitter, which is a microblogging network, has become more popular in recent months. Because of this, it now has tens of millions of active users who make and share content all the time.

In this study, movies are our primary focus for two reasons: